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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,645	08/22/2001	Iancu Lungu	RICHTER-3950	2685

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EXAMINER

RO, BENTSU

ART UNIT PAPER NUMBER

2837

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,645

Applicant(s)

LUNGU, IANCU

Examiner

Bentsu Ro

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 3-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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FIRST OFFICE ACTION --- A NONFINAL REJECTION

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The drawings are objected to.

The drawings are considered to be informal because the drawings are photocopied. The photocopied drawings do not provide a clear picture of the drawings. A new set of formal drawings is required.

3. The specification arrangement is objected to. The specification should be arranged in a US format. The following are guidelines for arranging a specification:

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

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(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

A substitute specification is required. The substitute specification should not contain any new matter. A marked up copy is also required.

4. The specification is objected to because of the following reasons:

- Page 2, line 6, applicant calls reference numeral 32 as a "rotor position indicator". However, in drawing Fig. 2, the reference numeral 32 is shown as "rotor permanent magnets", which do not indicate anything.
- Page 3, lines 17-18 states "Fig. 5 shows the relevant control signals of the motor as rectangular (voltage) pulses." However, Fig. 5 shows the structure of the transmitting magnets, the positioning of Hall sensors 31a, 31 and the arrangement for the movement of Hall sensor 31.
- Page 3, last three lines through page 4, line 10, the reference to "power transistors 211 of WO 96/09683, pages 8-9, fig. 6e" is improper unless this figure (6e) is shown in this application as a prior art.
- Page 6, line 19 refers to a "selection lever 36". However, Fig. 5 shows reference numeral "36" as an angle of movement, not a selection lever. Line 22 clearly states that "At the beginning of the stroke of the lever 37,...." Thus, "36" is not a lever but "37" is.
- Page 11, line 17, the usage of the words "Fig. 3 plane a.b" to represent a drawing is inappropriate. Applicant should use "Fig. 3 (a)-(b)" instead.
- and may be more???

In summary, this instant application appears to be a direct translation of a foreign application, some of the words use in this instant application are not a common practice in the US. For example, the phrase "fat line" is not seen in the US format.

5. Claims 5-32 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-32 have not been further treated on the merits.

6. Claims 3 and 4 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims 3 and 4 have not been further treated on the merits.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Lungu US Patent No. 6,262,510 B1.

The following chart compares applicant's claimed subject matters with the Lungu's teaching.

<u>The claims:</u>	<u>Lungu 6,262,510 Patent teaching:</u>
1. Method for controlling the power of electronically switched two-phase reluctance machine with direct	Lungu teaches an apparatus and a method for controlling an electronically switched reluctance motor, see the title;

transmission of the demagnetization energy of a switched off phase to the following phase,	<p>column 4, lines 50-53 states that "As <i>becomes apparent from Fig. 6a, this has to be done with the aid of the coupling diodes 22, which supply a positive overvoltage, which is generated when the winding 112X is switched off, to the winding 112Y (or vice versa).</i>";</p> <p>as shown in Fig. 6a, during the switching off of the winding 112X, the inductive energy in this winding is transferred to the next winding 112Y via a coupling diode 22; similarly in Fig. 6b, the energy during the switching off of the main winding 112X is transferred to the main winding 112Y via the secondary winding 113Y and the coupling diode 22, see column 4, line 50 through column 5, line 17;</p>
characterized in that the switching-on of the main current takes place delayed by a duration after the phase commutation.	<p>column 11, lines 4-6 clearly states that "<i>The disconnection of a winding (e.g. 112X) results, via the electronic logic, in the switching on (possibly after a predetermined delay) of the following winding, e.g. 112Y.</i>" (Emphasis added.)</p>
2. Method for power control according to claim 1, characterized in that, between the locking of the power switch (21X) of a phase (X) and the current conducting phase of the switch (21Y) of the following	<p>Fig. 6b shows a similar control arrangement as that of applicant's Fig. 1; in Fig. 6b, during the switching off of transistor 21X and switching on of transistor 21Y,</p>

<p>phase (Y), the self-induction voltage U_a, which arises by the switching off of the phase (X) at the connection between the main winding (112X) and the power switch (21X), is supplied over a bypass diode (22) to a phase (Y,X,Y) which is not separated from the source of current.</p>	<p>the self-induction voltage of main winding 112X is supplied to a secondary winding 113Y via a coupling diode 22;</p> <p>it is noted that all the windings use the same source of current, therefore, it does not matter how the windings are energized, the current source is not separated.</p>
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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication should be directed to Bentsu Ro at telephone number (703) 308-3656.

2/26/2004


Bentsu Ro
Senior Examiner
Art Unit 2837